
Mathematics People

Arguin Awarded Aisenstadt Prize



Louis-Pierre Arguin

LOUIS-PIERRE ARGUIN of the City University of New York (Baruch College and Graduate Center) has been awarded the 2015 André-Aisenstadt Prize in Mathematics by the Centre de Recherches Mathématiques (CRM). The prize citation reads in part: “One of his most spectacular breakthroughs came in a series of joint papers with Anton Bovier and Nicola Kistler on the extreme values of

branching Brownian motion. This work has received considerable international recognition and was the subject of a Séminaire Bourbaki in March 2013. The impact of the methods developed by Arguin and his collaborators goes beyond probability theory. In particular, Arguin, Belius, and Harper have applied this approach to probe the conjecture of Fyodorov, Hiary, and Keating stating that the maxima of the Riemann zeta function on a bounded interval of the critical line have statistics similar to branching Brownian motion. In an earlier work with Aizenman, Arguin developed a new approach to a long-standing open problem in statistical mechanics now referred to as the Parisi ultrametricity conjecture. The conjecture is about a large class of interacting particle systems, called spin glasses. The ideas of Aizenman and Arguin were central to the construction of a rigorous theory of spin glasses, notably in the work of Panchenko, who proved the ultrametricity conjecture in the most general case in 2012.” Arguin received his PhD in mathematics at Princeton University in 2007 under the supervision of Michael Aizenman. His research interests lie in probability theory and its applications to mathematical physics and other fields.

Arguin told the *Notices*: “I grew up in Quebec City and finished with a masters in physics at the University of

Montreal. I switched to math during my PhD at Princeton because it was the beginning of a very prolific period for probability theory. No regrets there as it is a very exciting field now. I left my position in Montreal recently to accept a position at CUNY since my wife is a New Yorker. I like to run. This is the best way to reboot the brain after a day of math.”

The Aisenstadt Prize recognizes outstanding research achievement by a young Canadian mathematician in pure or applied mathematics.

—From a CRM announcement



Claire Voisin

Voisin Awarded Hopf Prize

CLAIRE VOISIN of the Institut de Mathématiques de Jussieu, Centre National de la Recherche Scientifique (CNRS) has been awarded the Heinz Hopf Prize by ETH Zürich “for her exceptional services to mathematics” as “one of the world’s leading researchers in the field of complex algebraic geometry”.

One of Voisin’s most significant findings has been the solution to a fifty-year-old conjecture by Japanese mathematician Kunihiko Kodaira, for which she won the Clay Research Award in 2008. This conjecture relates to so-called Kähler manifolds, which also play a role in physical string theory. Kodaira conjectured that it would be possible not only to transform two-dimensional Kähler manifolds into an algebraic variety but also to do so in higher dimensions. Voisin solved the problem by presenting counterexamples to the Kodaira conjecture that are not transformations of this kind. The prize carries a cash award of 30,000 Swiss francs (approximately US\$29,500).

On the personal side, Voisin told the *Notices*, “I grew up in a large family, with three brothers and eight sisters,

and I have five children myself, so I like staying alone and working alone. I am much indebted to the CNRS for letting me work at home, which has made possible and even easy taking care of the children, while never stopping doing math, sharing all of this with my husband. I am happy that life gave me not only professional achievements but also a lot of love that I did not really expect from my own childhood.”

—From an ETH Zürich announcement

Martirosyan Awarded Emil Artin Junior Prize

LILIT MARTIROSYAN of the University of California San Diego has been awarded the 2016 Emil Artin Junior Prize in Mathematics for her paper “The representation theory of the exceptional Lie superalgebras $F(4)$ and $G(3)$ ”, *Journal of Algebra* **419** (2014), 167–222. Established in 2001, the Emil Artin Junior Prize in Mathematics carries a cash award of US\$1,000 and is presented usually every year to a student or former student of an Armenian educational institution under the age of thirty-five for outstanding contributions to algebra, geometry, topology, and number theory—the fields in which Emil Artin made major contributions. The prize committee consisted of A. Basmajian, Y. Movsisyan, and V. Pambuccian.

—Victor Pambuccian, New College, Arizona State University

Ullrich Receives 2015 IBC Young Researcher Award

MARIO ULLRICH of the Institute of Analysis, Johannes Kepler University, has been chosen as the recipient of the Joseph F. Traub Information-Based Complexity Young Researcher Award for 2015 “for his outstanding work in the field of information-based complexity”. The award consists of US\$1,000 and a plaque. The name of the award has been changed to honor Joseph F. Traub, the founder of this prize.

—Henryk Wozniakowski, Columbia University



Ritabrata Munshi

Sandeep and Munshi Receive Bhatnagar Prize

K. SANDEEP of the TIRF Centre for Applicable Mathematics and RITABRATA MUNSHI of the Tata Institute of Fundamental Research have been awarded the 2015 Shanti Swarup Bhatnagar Prize for Science and

Technology in the mathematical sciences. Sandeep works in partial differential equations, variational methods, and nonlinear functional analysis. Munshi’s work involves number theory.

Munshi told the *Notices*: “I grew up in a small town near Calcutta (now Kolkata). During my school days my interest shifted from theoretical astrophysics to mathematics, especially number theory. After school, I was told that the best way to learn mathematics in India would be to join the Indian Statistical Institute at Calcutta as an undergraduate student in statistics. Indeed, it was one of the very few options available to students in mathematics at that time. As a senior undergraduate, when the curriculum got more focused on practical statistics, I chose to supplement my study with periodic visits to the Tata Institute of Fundamental Research in Bombay (now Mumbai). During my first visit to the Tata Institute I came up with a new proof of Hilbert’s Nullstellensatz. It turned out to play a crucial role in my career. I passed the undergraduate program with a gold medal. In 2001, I joined the graduate school of Princeton University as a centennial fellow. My thesis advisor was Professor Andrew Wiles. During 2006–2009 I was a Hill Assistant Professor at Rutgers University, and during 2009–2010 I was a member at the Institute for Advanced Study, Princeton. I returned to India in 2010 and joined the Tata Institute as reader, and I was promoted to associate professor in 2013. In August 2015 I took leave from the Tata Institute to join my alma mater, Indian Statistical Institute, as a full professor. Presently I am also a SwarnaJayanti Fellow of the Department of Science and Technology, Government of India. I am also the recipient of the B M Birla Science Prize for the year 2013.”

The Shanti Swarup Bhatnagar Prize is awarded by the Council of Scientific Research and Industrial Development to recognize outstanding Indian work in science and technology. Shanti Swarup Bhatnagar was the founding director of the Council. It is the highest award for science in India. The prize carries a cash award of 500,000 rupees (approximately US\$7,500).

—Council of Scientific Research and Industrial Development, India



Mahan Mj

Infosys Prize Awarded

MAHAN MJ of the Tata Institute of Fundamental Research has been awarded the 2015 Infosys Prize in mathematical sciences by the Infosys Science Foundation. He was honored “for his outstanding contributions to geometric group theory, low-dimensional topology, and complex geometry”, in particular for work that “established a central conjecture in the Thurston program to study hyperbolic 3-manifolds and introduced important new tools

to study fundamental groups of complex manifolds". The prizewinners are selected based on significant progress showcased in their chosen spheres, as well as for the impact their research will have on the specific field. Mahan Mj told the *Notices* that, in addition to his mathematical life, he is "a monk with no particular (organized) religious affiliation".

—From an Infosys Science Foundation announcement

2015 Prix la Recherche

BERTRAND DEROIN, Ecole Normale Supérieure, CHRISTOPHE DUPONT, Université de Rennes, and VICTOR KLEPTSYN, Université de Rennes, have been awarded the 2015 Prix la Recherche for their use of innovative methods to study differential equations. The research prizes, given by the French magazine *La Recherche*, honor the best scientific work conducted in France during the preceding year.

—From a La Recherche announcement

Golden Goose Awards

JOEL E. COHEN, a mathematical population biologist at Rockefeller University, and CHRISTOPHER SMALL, a geophysicist at Columbia University's Lamont-Doherty Earth Observatory, have been awarded a 2015 Golden Goose Award for their research into "hypsographic demography"—the study of how human populations are distributed with respect to altitude. The Golden Goose Awards, of which the AMS is a sponsor, recognizes seemingly obscure federally-funded research that has led to major breakthroughs resulting in significant societal impact. The awards have strong bipartisan congressional support and are awarded each year at a ceremony in Washington, DC.

—Golden Goose Steering Committee

Rhodes Scholars Announced

The Rhodes Trust has selected thirty-two US scholars as Rhodes Scholars for 2016. Rhodes Scholarships provide all expenses for two or three years of study at the University of Oxford in England and may allow funding in some instances for four years. They were created in 1902 by the will of Cecil Rhodes, British philanthropist and African colonial pioneer, and are provided in partnership with the Second Century Founder, John McCall MacBain, and other generous benefactors.

GRACE E. HUCKINS, Weston, Massachusetts, is a Harvard senior concentrating in neurobiology and physics. Her passion is computational and theoretical neuroscience. She hopes to uncover the mathematics that governs the networks of neurons that make up the brain, and particularly those that create the thought and feelings that differentiate human beings from other animals. She has done

research in neuroscience in the United States, Japan, and France. She is also the Arts Chair of the *Harvard Crimson* and was the president of the Radcliffe Union of Students. She has qualified several times for US National and Junior Olympic fencing championships. She plans to pursue a DPhil in neuroscience at Oxford.

MEGAN G. MUSILLI, El Dorado Hills, California, is a senior at the US Naval Academy, where she majors in mathematics and is training to become a physician in the Navy. Her research spans the study of traumatic brain injury and MRI-scanning techniques at Walter Reed National Military Medical Center, satellite tracking at Lawrence Livermore National Laboratory, and the concept of genetic algorithms and state machines in data compression at the Naval Academy. She has served as squad leader, platoon commander, and regimental commander at the Naval Academy. She earned a scholarship to study abroad at Koç University in Istanbul, Turkey, and served in medical and surgical clinics on the US Navy hospital ship *Comfort* in a 2015 humanitarian deployment to Panama and El Salvador. Her varsity women's crew team won the Division I Patriot League Championships and participated in the NCAA Women's National Rowing Championships. Megan plans to pursue the MSc in medical anthropology at Oxford.

ASHLEY E. ORR, Columbiana, Ohio, is a senior at Youngstown State University, where she is in the University Scholars Program in the Honors College and majors in mathematics and economics. She is president of the YSU Student Government Association, cofounder of a poverty awareness program in the city of Youngstown, and extraordinarily active with a wide range of volunteer services in her community. She has studied at the London School of Economics, has worked at the Federal Reserve Bank in Cleveland, and has done research projects focused on public housing, crime, and on poverty generally. She is the first Rhodes Scholar to be elected from Youngstown State University. She plans to pursue the MPhil in economics at Oxford.

EVAN J. SOLTAS, Rumson, New Jersey, is a senior at Princeton University, where he majors in economics. While still in high school, his economic blogging led to his becoming a regular contributing writer to both "Bloomberg News" and the *Washington Post*, where he prepared the daily *Wonkbook* newsletter. His continued passion for economics led him to study and continue to write extensively on economic issues, including an in-depth study of the impact of food stamp benefits in reducing hunger in impoverished households. He is team president of Princeton's Federal Reserve Challenge and led the team to a second-place finish nationally in The College Fed Challenge competition at the Federal Reserve Board of Governors, Washington, DC. At Oxford, he will pursue an MSc in applied statistics, followed by an MSc of research in statistics.

—From a Rhodes Trust announcement